



TECHNICAL UPDATE

Aero Engines Asia Pacific 2025

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30 YEARS OF TRENT



BUILDING ON THE MOST SUCCESSFUL ENGINE FAMILY



- 5,185 installed engines with 171 Airlines
- Over 200 million flying hours
- More than 37 million cycles
- An option for every passenger widebody currently in production

THE YEAR IS 2015

**AREN'T YOU GLAD YOU BOUGHT
THE TRENT?**



ADVANCED POWER SYSTEMS FOR TOMORROW'S WORLD

“Take the best that exists and make it better” – Sir Henry Royce

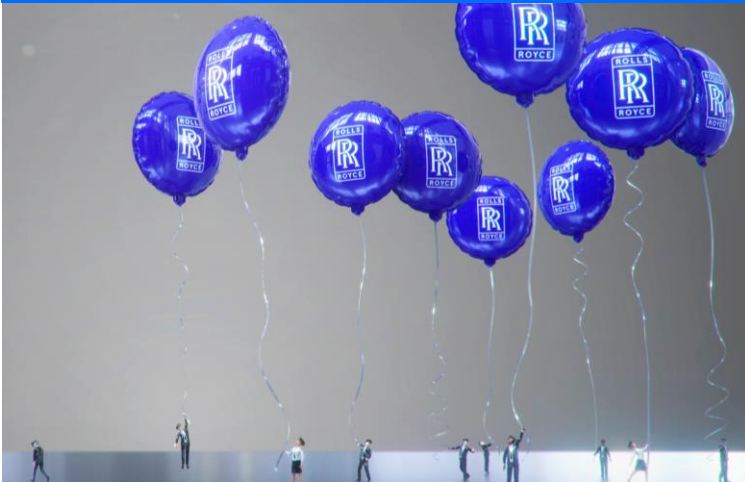
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TRENT XWB-84 – THE BEST WIDEBODY ENGINE...



Most Profit

- Chosen by 9/10 of the world's most profitable airlines
- Utilised for more than 12 hours per day, flying more than half a million passengers between delays



Lowest Costs

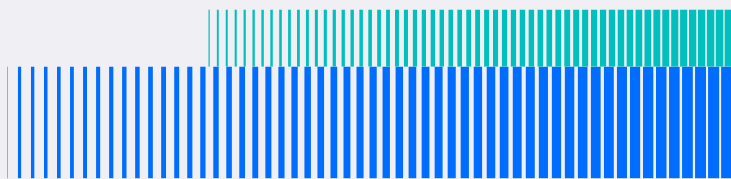
- Lowest fuel consumption of any widebody engine in service
- 10% lower fuel burn than previous generation engine



Longest Time on Wing

- 6 year Time on Wing – flying more than a million passengers between removals
- 80% reduction in reliability events compared to previous generation

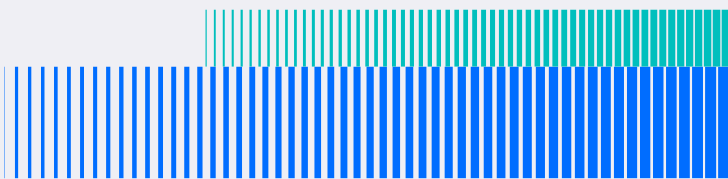




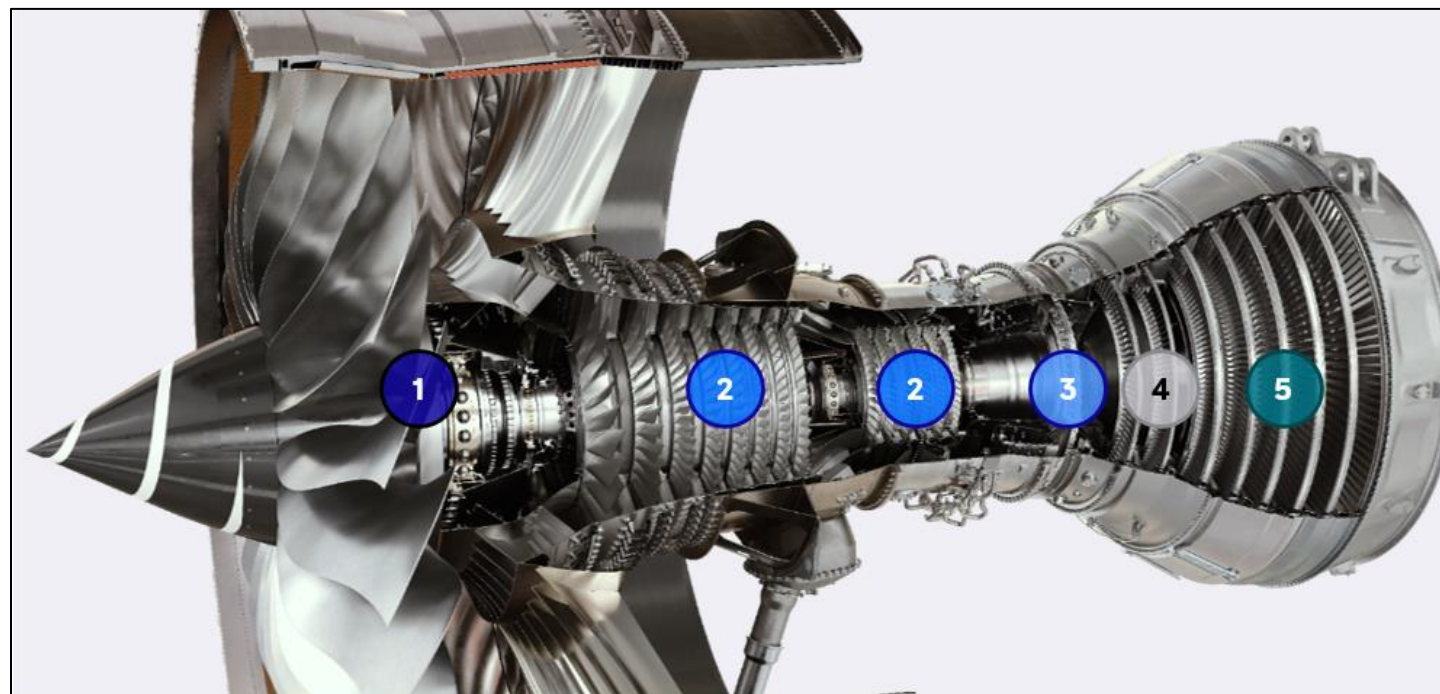
...JUST GOT EVEN BETTER



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EVOLUTION NOT REVOLUTION



Enhanced cruise-aero fan	1	HP & IP compressor aero improvement	2	Increased cooling flow HPT blade	3
Improved IPT aerodynamics	4	Aerodynamic redesign of LPT	5	Air system optimisation	6

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TRENT XWB-97 – ALWAYS AHEAD



Trust the Market

- Reduces fuel bill by up to 25% compared to previous generation
- Over 20 hours in the air: chosen to fly the ultimate long haul routes



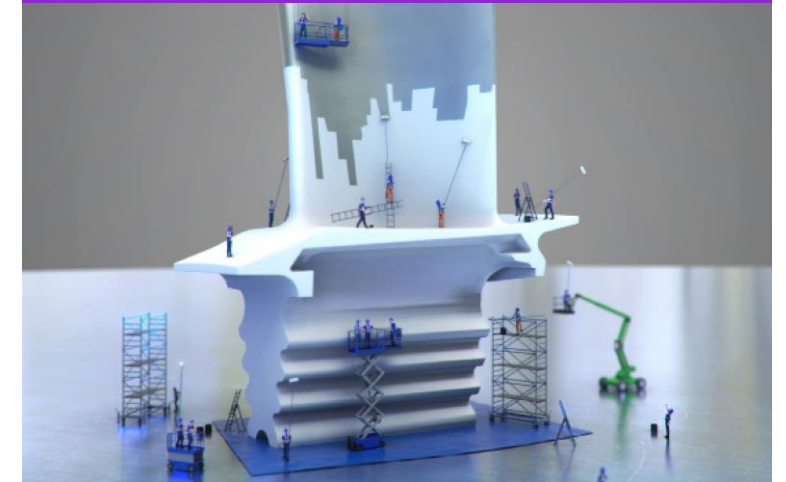
Proven in Service

- Millions of hours and billions of miles in real world flying
- Most utilised aircraft engine in the world with more than a lifetime between delays

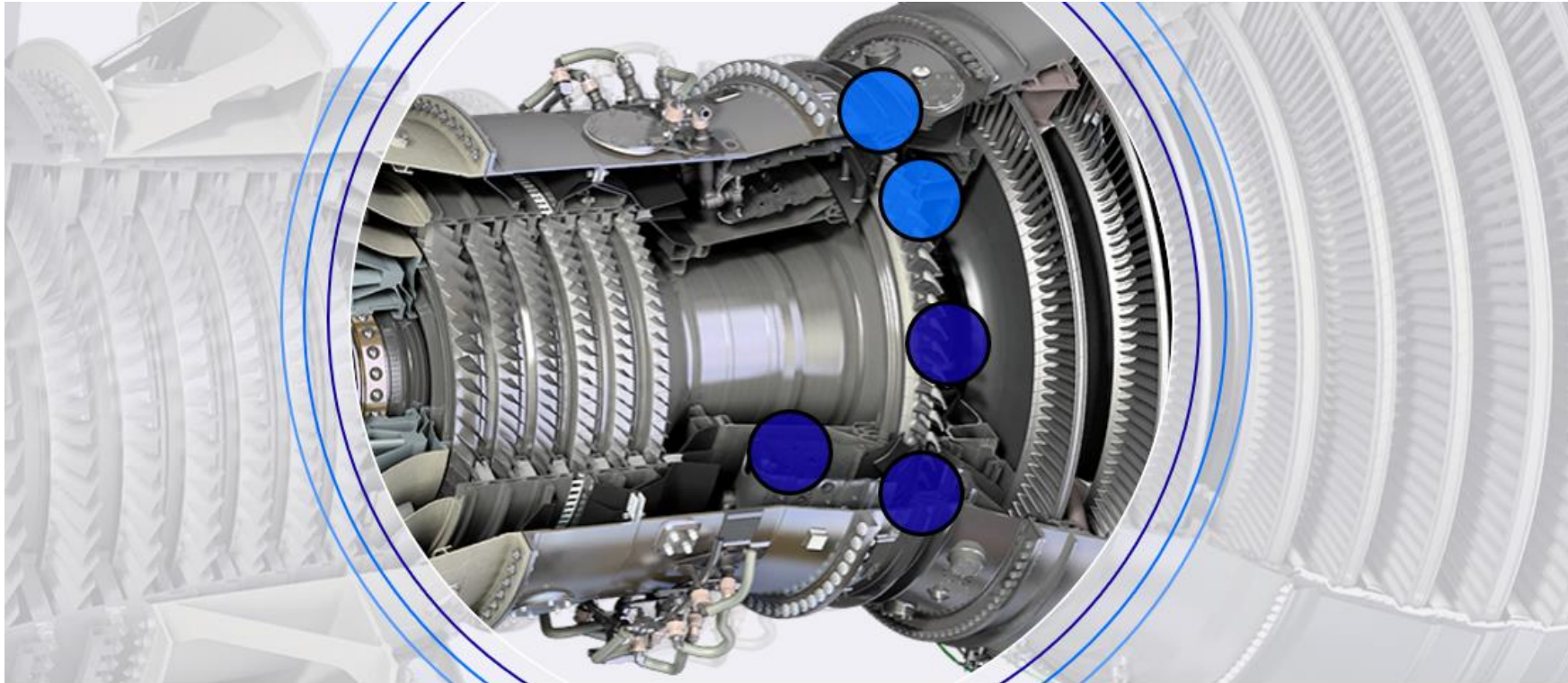


Future Proof

- Two of the three planned tech upgrades already delivering more than 4 years Time on Wing
- More than 400 engineers working on extending this to 6 years



ALWAYS AHEAD - FUTURE PROOF



Phase 1

Increased temperature margin and enhanced turbine case cooling for durability

Available

Phase 2

CMAS-resistant coated HPT seal segments and HPT blade

Available

Phase 3

Modified HPT and combustor to reduce metal temperatures with the potential for CMCs

2028+

UPGRADE TO THE TRENT 7000 AND FLY, FLY, FLY



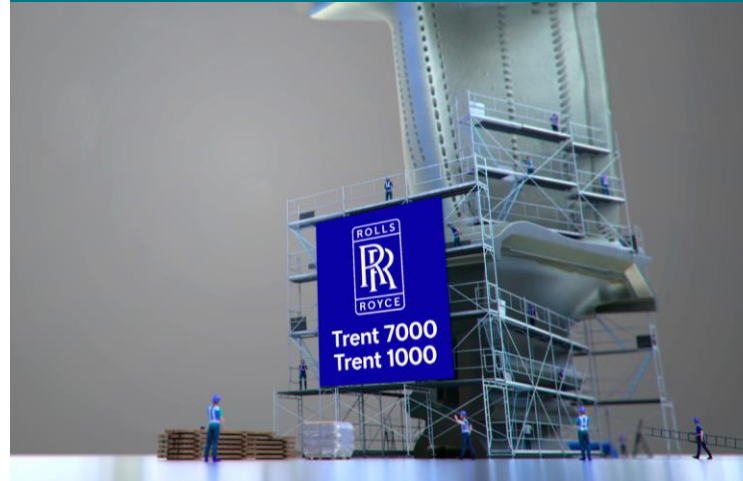
Fly Profitably

- Latest generation technology at lowest risk
- 20% greater availability and 11% better fuel burn than Trent 700



Fly More

- Best in class reliability and Time on Wing
- Lowest maintenance requirements of any Trent engine



Fly Everywhere

- Unrivalled levels of versatility with flights in service from 45 minutes to 12 hours



TRENT 1000 – AN EXCITING NEW CHAPTER



Proven time on wing

- More than DOUBLING time on wing with a Durability Enhancement package
- Already proven in service on the Trent 7000



Lasting performance

- Whether it's durability, reliability or fuel efficiency the Trent 1000 is now able to retake it's place within the world's most successful widebody engine family



It's guaranteed

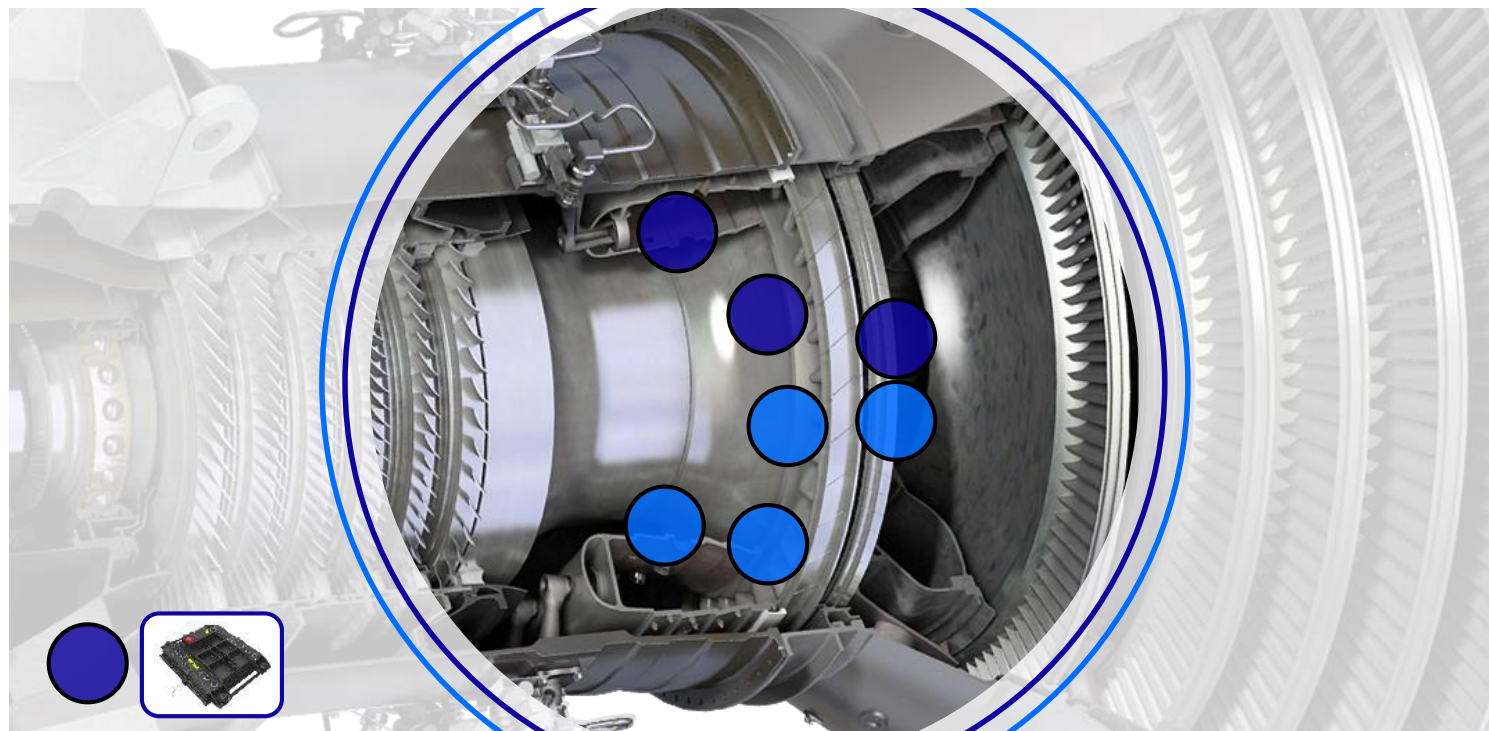
- Our product and service commitments are robustly commercialized through our long-term contracts
- Support you can trust



TRENT 1000 & TRENT 7000 – INVESTING FOR THE FUTURE



Delivering durability enhancements



Phase 1

Trent 7000
Trent 1000

>50% fleet embodied
Available Q2 2025

Phase 2

Trent 7000
Trent 1000

Available H1 2026
Available H1 2026

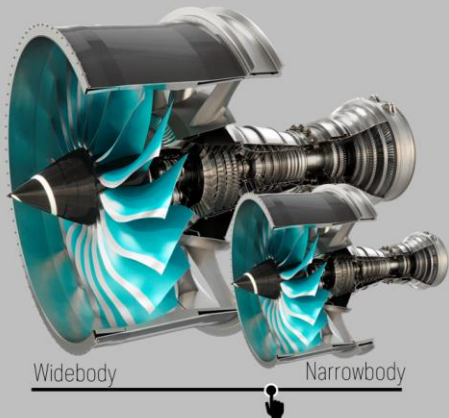
- Phase 1 improvements have already proven to more than DOUBLE time on wing in service on the Trent 7000
- Soon to be available for the Trent 1000 TEN
- Phase 2 will deliver a further up to 30% time on wing improvement
- Phase 2 development testing already underway

ULTRAFAN – THE NEXT BIG THING, COULD BE A SMALL THING



It fits all markets

Scalable from 25,000 to 110,000lb+ thrust for future narrowbody and widebody aircraft



It's delivers

10% better aircraft fuel consumption than the industry's best engine, Trent XWB



It's ready to fly

We're proving UltraFan in the air with flight tests of scaled engines for widebody and narrowbody



It's the ultimate

Offering a balance of technology readiness and efficiency at the lowest risk for the 2030s





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